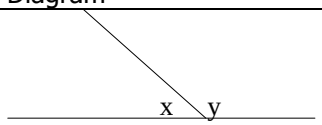
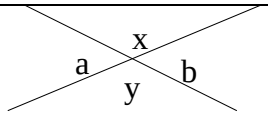
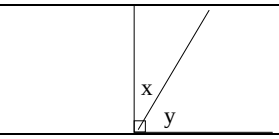
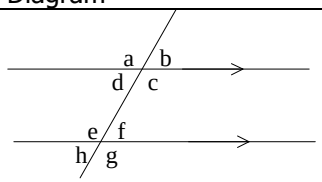
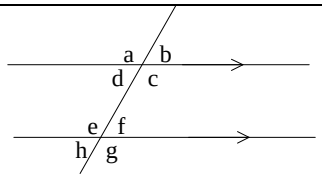
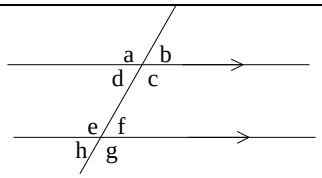
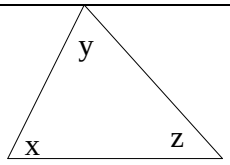
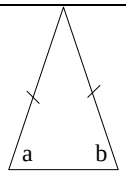
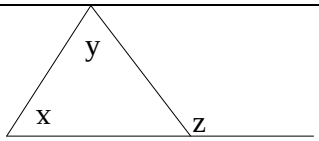
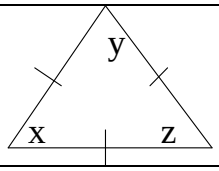
Geometric Theorems Summary Sheet

Supplementary, Opposite & Complementary Angles		
Theorem	Diagram	Description
Supplementary Angles **(SA)**		- supplementary angles add to 180° - angles on a straight line are supplementary x + y = 180°
Opposite Angles **(OAT)**		- opposite angles are equal x = y a = b
Complementary Angles **(CA)**		- complementary angles add up to 90° x + y = 90°
Parallel Line Theorems (PLT)		
Theorem	Diagram	Description
Corresponding Angles **(Cor)**		- corresponding angles are equal - they form an **F-pattern** a = e b = f c = g d = h
Alternate Angles **(Alt)**		- alternate angles are equal - they form a **Z-pattern** c = e d = f
Interior Angles **(Int)**		- interior angles add up to 180° (are supplementary) - they form a **C-pattern** c + f = 180° d + e = 180°
Triangle Theorems		
Theorem	Diagram	Description
Sum of Angles in a Triangle Theorem **(SATT)**		- the sum of angles in a triangle is 180° x + y + z = 180°
Isosceles Triangle Theorem **(ITT)**		- the angles opposite the equal sides are equal a = b
Exterior Angle Theorem **(EAT)**		- the exterior angle is equal to the sum of the 2 opposite interior angles z = x + y
Equilateral Triangle		- all angles are equal (60°) x = y = z = 60°